

Virtual Radar Software



Sunhillo's Virtual Radar (VR) software receives beacon track messages that have been processed by one of the input decoding functions of our Surveillance Gateway products. The input parameters are used in conjunction with the VR configuration parameters to provide "emulated" (virtual) radar that outputs the data in a virtual scan.

The VR software emulates a radar system based on a set of configuration parameters and provides the timing required to deliver the CD-2 messages to other automation systems. The type of radar emulated is a 12-second CD-2 radar sweep with 4096 discrete locations, or Azimuth Change Pulses (ACP). The configuration parameters provide the mechanism to define a Service Volume (SV) in order to provide the radar coverage for a volume of airspace. For example Radar coverage does not extend over the Gulf of Mexico and Sunhillo's Virtual Radar allows the existing Automation system, Host Computer at the Houston ARTCC, to

utilize the ADS-B track information.

In addition to the Beacon messages that are transmitted by the VR software, the following types of radar messages are generated:

Beacon Real Time Quality Control (BRTQC) Message

Contains the same information as a Beacon message. It is a test message with configurable information content. It is generated once per scan.

Search Real Time Quality Control (SRTQC) Message

A search test target with configurable information content. The SRTQC is generated once each scan and contains target slant range, azimuth, and type.

Sector Mark

The Sector Mark message marks when the sweep has passed a certain percentage of the scan. The number of sector marks to generate per scan is based on

FEATURES

- Provides Virtual Radar data that outputs to a virtual scan
- Plug-in for Sunhillo's RIC1, SGP, or Longport
- Deployed in the FAA ADS-B program
- ADS-B data can be displayed as virtual radar data
- Additional messages include: BRTQC, SRTQC, Sector Mark, North Mark, and South Mark

VR configuration.

North Mark Message

A message indicating that the sweep has just passed 0 Azimuth Change Pulses (ACP).

South Mark Message

A message indicating that the sweep has just passed 2048 ACPs.